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L1 35003 S (INFLAMMATORY BOWEL DISEASE)  
L2 326 S (MACROPHASE ELASTASE) OR MMP-12  
L3 0 S L1(5A)L2  
L4 1 S L1 AND L2

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L5 373065 S L1 OR INFLAMMATION  
L6 3 S L5(5A)L2  
L7 645042 S L5 OR ULCER?  
L8 5 S L7(5A)L2

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E CHAKRAVARTI SHKTI/AU  
L9 41 S E7  
L10 0 S L9 AND L2  
L11 575 S MACROPHAGE ELASTASE OR MMP-12  
L12 0 S L9 AND L11  
L13 575 S (MACROPHAGE ELASTASE) OR MMP-12  
L14 0 S L13 AND L9  
L15 4 S L9 AND L1

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# Distinct expression profiles of stromelysin-2 (MMP-10), collagenase-3 (MMP-13), macrophage metalloelastase (MMP-12), and tissue inhibitor of metalloproteinases-3 (TIMP-3) in intestinal ulcerations

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Programmed expression of matrix metalloproteinases is involved in wound healing in various organs. We have previously demonstrated enhanced expression of collagenase-1, stromelysin-1, matrilysin, and tissue inhibitor of metalloproteinases (TIMP-1) in gastrointestinal ulcerations. To further define the role of matrix-degrading enzymes and their inhibitors in intestinal inflammation and ulcerations, the expression of stromelysin-2 (MMP-10), collagenase-3 (MMP-13), macrophage metalloelastase (HME, MMP-12), and TIMP-3 mRNAs was studied using in situ hybridization and immunohistochemistry in 38 samples representing ulcerative colitis, Crohn's disease, ischemic colitis, and normal intestine. As controls for normally healing intestinal wounds, 12 postoperative samples of rat experimental jejunal anastomoses were also examined. The colitis types studied did not essentially differ in their MMP expression. We found stromelysin-2 mRNA in laminin-5-positive and Ki-67-negative enterocytes bordering the ulcerations. HME was abundantly expressed by macrophages in the vicinity of shedding mucosal epithelium and beneath the necrotic surface of the ulcers. Collagenase-3 and TIMP-3 were expressed by fibroblast-like cells deeper in the remodeling intestinal wall. Expression for stromelysin-2 and collagenase-3 was observed in granulation tissue, but not the epithelium, of the rat anastomoses. Our results suggest a role for stromelysin-2 in epithelial migration and for metalloelastase in macrophage movement and epithelial cell shedding.

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